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EXAMINER

DUNWOODY, AARON M

ART UNIT PAPER NUMBER

3679

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/029,925

Applicant(s)

TIMM, HARALD

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1, 4, 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by US patent 2823702, November.

In regards to claim 1, in Figures 3 and 4, November discloses a bending pipe element made of metal for bending pipe sections and for return pipes in internal combustion automobile engines, the pipe element comprising a first set of undulations having a first outer diameter; and a second set of undulations having a second outer diameter different than the first outer diameter, the first and the second sets of undulations being disposed one behind the other in a longitudinal direction of the pipe element, wherein the second set of undulations is interposed between neighboring pairs of the first set of undulations and the first set of undulations is interposed between neighboring pairs of the second set of undulations, and wherein the first set and the second set of undulations have an approximately equal inner and outer radius.

In regards to claim 4, November discloses the first undulations of the unbent pipe element having an approximately same circular-segment shape.

In regards to claim 5, November discloses the second set of undulations of the unbent pipe element having the approximately same circular-segment shape.

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In regards to claim 7, November discloses in the unbent pipe element, an inner radius and an outer radius of the first and the second set of undulations describing circular arcs of between 175° to 230° (not shown but implied).

In regards to claim 8, November discloses in the unbent pipe element, an inner radius and an outer radius of the first and the second set of undulations describing a circular arc of approximately 180° (not shown but implied).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over November.

In regards to claims 2 and 3, November discloses the claimed invention except for the first outer diameter of the first set of undulations exceeding the second outer diameter of the second set of undulations by 5% to 20%, relative to the second outer diameter; or the first outer diameter exceeding the second outer diameter by 10% to 15%, relative to the second outer diameter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the first outer diameter of the first set of undulations to exceed the second outer diameter of the second set of undulations by 5% to 20%, relative to the second outer diameter; or fabricate the first outer diameter so as to exceed the second outer diameter by 10% to

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15%, relative to the second outer diameter, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regards to claims 12 and 13, November discloses the claimed invention except for the first and the second sets of undulations being fashioned from a wall thickness of between 0.2mm and 0.5mm, or the first and the second sets of undulations being fashioned from a wall thickness of approximately 0.4mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the first and the second sets of undulations from a wall thickness of between 0.2mm and 0.5mm, or fabricate the first and the second sets of undulations from a wall thickness of approximately 0.4mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 9, 10, 11, and 14-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over November in view of US patent 4458722, Dahn.

In regards to claims 9, 10, 14 and 21, November discloses the claimed invention except for straight sections being disposed in the unbent pipe element between the inner and outer radius of the approximately circular segment shaped first and second sets of undulations, or substantially cylindrical, non-undulated connecting ends. Dahn discloses straight sections (25, 26) being disposed in the unbent pipe element (10) between undulations (11,16), and substantially cylindrical, non-undulated connecting

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ends (25, 26) to connect with the exhaust system of an automobile. It would have been obvious to one having ordinary art at the time the invention was made to fabricate straight sections disposed in the unbent pipe element between undulations, and fabricate substantially cylindrical, non-undulated connecting ends to connect with the exhaust system of an automobile.

In regards to claims 11 and 22, November in view of Dahn discloses the claimed invention except for an average outer diameter of the first and the second sets of undulations exceeding an outer diameter of the connecting ends by 10% to 35%, relative to the outer diameter of the connecting ends. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate an average outer diameter of the first and the second sets of undulations to exceed an outer diameter of the connecting ends by 10% to 35%, relative to the outer diameter of the connecting ends, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regards to claims 15 and 16, November discloses the claimed invention except for the first outer diameter of the first set of undulations exceeding the second outer diameter of the second set of undulations by 5% to 20%, relative to the second outer diameter; or the first outer diameter exceeding the second outer diameter by 10% to 15%, relative to the second outer diameter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the first outer diameter of the first set of undulations to exceed the second outer diameter of the

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second set of undulations by 5% to 20%, relative to the second outer diameter; or fabricate the first outer diameter so as to exceed the second outer diameter by 10% to 15%, relative to the second outer diameter, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regards to claim 17, November discloses the first undulations of the unbent pipe element having an approximately same circular-segment shape.

In regards to claim 18, November discloses the second set of undulations of the unbent pipe element having the approximately same circular-segment shape.

In regards to claim 19, November discloses in the unbent pipe element, an inner radius and an outer radius of the first and the second set of undulations describing circular arcs of between 175° to 230° (not shown but implied).

In regards to claim 20, November discloses in the unbent pipe element, an inner radius and an outer radius of the first and the second set of undulations describing a circular arc of approximately 180° (not shown but implied).

In regards to claims 23 and 24, November discloses the claimed invention except for the first and the second sets of undulations being fashioned from a wall thickness of between 0.2mm and 0.5mm, or the first and the second sets of undulations being fashioned from a wall thickness of approximately 0.4mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the first and the second sets of undulations from a wall thickness of between 0.2mm and 0.5mm, or fabricate the first and the second sets of undulations from a wall thickness of

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approximately 0.4mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

Applicant's arguments filed 7/11/03 have been fully considered but they are not persuasive. The Applicant argues:

In the particular case at hand, the Applicant believes the Examiner has not given proper definition to the terms "inner and outer radius" in new claim 1 and former claim 6 as well as to the recitation of the "straight sections" in former claim 9 and new claim 14. The term "inner radius" has been defined by reference symbol r as illustrated in figure 2 and the associated specification paragraphs. The term "outer radius" is defined by reference symbol R, also visible in figure 2 and the associated portions of the specification. The term "straight sections" has been defined as reference symbol 4 as indicated in the specification and in figure 2. In subsequent examination of this case, the Examiner is respectfully requested to utilize the specific definitions of the terms recited in the claims for the basis of further examination.

While anticipation requires the disclosure of each and every limitation of the claim at issue in a single prior art reference, it does not require such disclosure *in haec verba*. *In re Bode*, 550 F.2d 656, 660, 193 USPQ 12, 16 (CCPA 1977). In addition, it does not require that the prior art reference "teach" what the application at issue teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983). Finally, Applicant is reminded that during examination claim limitations are to be given their broadest reasonable reading. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

Further, Figures 3 and 4 of November clearly illustrate the claimed features.

The Applicant argues:

November fails to disclose the last features of amended claim 1 and new claim 14, respectively, according to which said first and said second set of undulations have an approximately equal inner and outer radius and straight sections are disposed in the unbent pipe element between the inner and outer radius of said approximately circular-segment shaped first and second sets of undulations, respectively.

The Examiner disagrees. November's Figure 3 illustrates said first and said second set of undulations have **an approximately equal** (comes close to) **inner and outer radius**, and straight sections (17) are disposed in the unbent pipe element between the inner and outer radius of said approximately circular-segment shaped first and second sets of undulations.

The Applicant argues:

Reference numerals 25, 26 referred to the by Examiner as indicating straight sections of pipe between the inner and outer radii are in fact only cylindrical sleeves (not referred to in the description of US 4,458,722) used for attaching the disclosed corrugated tube, e.g. to other tube elements. Therefore, the combination of the teachings of US 2,823,702 and US 4,458,722 does not lead a person skilled in the art to fashion a binding pipe element as claimed in claim 9 of the instant application.

The Examiner disagrees. The drawings are part of Dahn's disclosure and Dahn's teaches that it would have been obvious to one having ordinary art at the time the invention was made to fabricate straight sections disposed in the unbent pipe element

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between undulations, and fabricate substantially cylindrical, non-undulated connecting ends to connect with the exhaust system of an automobile.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it illustrates similar concepts as the invention of the instant application.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is (703) 306-3436. The examiner can normally be reached on Monday - Friday between 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.amd



Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670